

decoded data.

28. The apparatus of any one of the claims 25 to 27 wherein said control unit sends a drive signal for driving an external-drive apparatus based on said first decoded data or said second decoded data.

29. The apparatus of any one of the claims 25 to 27 wherein said control unit performs said authentication when said first decoded data and said second decoded data match.

#### ABSTRACT

An apparatus 1 on the sending side sends a first signal S1 containing encrypted data that was encrypted using conversion constants Y,  $Zy'$ , and a conversion constant X to an apparatus 1 on the receiving side; the apparatus 1 on the sending side sends a second signal S2 containing encrypted data that was encrypted using conversion constants X,  $Zy'$ , and a conversion constant Y and pattern-conversion constants  $Zy$  that correspond to conversion constant  $Zy'$  to a relay apparatus 2; the relay apparatus 2 transfers a second' signal S2' in which a pattern-conversion constant  $Zy$  in the second signal S2 has been converted to a conversion constant  $Zy'$  to the apparatus 1 on the receiving side; the apparatus 1 on the receiving side reads the encrypted data and conversion constants X, Y,  $Zy'$  from the first signal S1 and second' signal S2', then decodes and authenticates the encrypted data.